

# NEW FOODPLANTS FOR TWO SPECIES OF LEAF-MINING *PEGOMYA* (DIPTERA: ANTHOMYIIDAE) IN BRITAIN

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*Pegomya* is a large genus of flies in the family Anthomyiidae. Although some of them are quite distinctive the majority have a typically muscoid appearance. The larvae of many *Pegomya* develop in fungi, but many others are leaf-miners. In 1990 the larvae of two species of *Pegomya* were found in upland habitats in Angus (VC 90) mining previously unrecorded foodplants.

## *Pegomya steini* Hendel, 1925

Two individuals of *P. steini* were reared from blotch mines in alpine saw-wort, *Saussurea alpina* (L.) DC., collected on 18.vii.1990 to the west of the Shank of Drumfallow (OS grid ref. NO2574) in Glen Doll. The imagines emerged on 17 and 20.iv.1991. This species normally mines the leaves of *Cirsium* and *Carduus* species and does not appear to have been previously noted in *S. alpina*. *Pegomya steini* is widely distributed in England but in Scotland was previously only known from Perthshire (Parmenter, 1956) and Midlothian (G. E. Rotheray, pers. comm.) but is probably more widespread than these few records suggest.

## *Pegomya haemorrhoea* (Zetterstedt, 1838)

For a number of years we have noticed anthomyiid blotch mines in mountain sorrel, *Oxyria digyna* (L.) Hill, in various parts of the Scottish Highlands but they have usually been vacated or else the larvae have died without pupating. However in July 1990 occupied mines were frequent in Corrie Fee in Glen Doll (OS grid ref. NO2474 and NO2574) and two collections of mines were made. The first collection was made on 18.vii.1990 and subsequently the larvae left their mines and pupated externally. Two imagines were reared on 24 and 28.v.1991. Some of the larvae of the second collection (made on 22.vii.1990) left their mines to pupate but others pupated within the mine. Interestingly, those that remained within their mines to pupate emerged slightly later (i.e. 21.v.1991 and 9.vi.1991) than those that pupated externally. The latter emerged on 9, 13 and 20.v.1991. *P. haemorrhoea* is one of the less common species of *Pegomya* mining *Rumex* spp.—this is the first record of it being reared from *Oxyria digyna*. The larva may mine as many as six different leaves of *Oxyria* before it pupates, thus a continual supply of fresh food is required in order to rear it successfully. Puparia similar to those of *P. haemorrhoea* were obtained from larvae mining *Oxyria* at Glen Coe (OS grid ref. NN1658), Argyllshire (VC 98) on 26.vii.1989, at Meall nan Tarmachan (OS grid ref. NN7643), Perthshire (VC 88) on 27.vii.1990 and at Grey Mare's Tail (OS grid ref. NT0021), Dumfries-shire (VC 72) on 9.ix.1990, but imagines failed to emerge. If these are all referable to *P. haemorrhoea*, the late feeding of the larvae in the southern hills suggests that it is double-brooded in Southern Scotland but only univoltine in the Highlands. However it should be noted that in Europe both *P. bicolor* (Hoffman., 1817) and *P. nigratarsis* (Zett., 1838) which are also *Rumex* miners, have been recorded leaf-mining *Oxyria digyna* (Hering, 1957; Hennig, 1966).

Both *P. bicolor* and *nigritarsis* occur in Scotland and are probably widespread although currently under-recorded.

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### SHORT COMMUNICATION

***Hydrometra gracilentia* Horvath (Hemiptera: Hydrometridae) in East Sussex.**—I took a single specimen of *H. gracilentia* from the margin of a drainage ditch in the Pevensey Levels, East Sussex (TQ6606), 30.vii.1988. *H. gracilentia* is a very rare species in Britain, with previous records only from the Norfolk Broads and the New Forest (Shirt, 1987). There appear to be no recent records from the latter locality. The bug's habitat in Norfolk, as described by Brown (1948) and Leston (1952) was under the shade of dense clumps of *Carex* and *Juncus* at the margin of shallow water over a peaty substrate. It was found in quite different conditions in Sussex. The ditch from which it was taken was several feet across and up to two feet deep. It was well vegetated, with emergent *Phragmites* across much of its width in places. The marginal vegetation was well-developed and varied, including some *Carex* clumps, but was not especially dense and did not give heavy shade. The substratum was silty and contained no peat. It is worth noting that in mainland Europe *H. gracilentia* is a relatively frequent species and is found at the margins of a wide range of types of water body.

*H. gracilentia* was the last specimen collected before leaving the area from which it was taken, and its identity was not recognized at the time. I therefore have no impression of the frequency of the species at the site. The Pevensey Levels are large, and could support a considerable population of the insect. Several other parts of the levels were visited, but no *H. gracilentia* were seen. However, this does not mean that they were not there: *Hydrometra* can be difficult to find amongst marginal vegetation, and on this occasion the common *H. stagnorum* was not recorded at all.

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